ASEAN Minerals Cooperation Action Plan (AMCAP-IV) 2026–2030

one vision
one identity
one community

ASEAN Minerals Cooperation Action Plan (AMCAP-IV) 2026–2030

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States of the Association are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

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ASEAN: A Community of Opportunities for All

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ASEAN Minerals Cooperation Action Plan (AMCAP-IV) 2026–2030

The ASEAN Secretariat
2025

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List of Common Abbreviations

AEC	ASEAN Economic Community
AMCAP	ASEAN Minerals Cooperation Action Plan
AMDV	ASEAN Minerals Development Vision
AMEXS	ASEAN Minerals Exploration Strategy
AMIS	ASEAN Minerals Information System
AMMin	ASEAN Ministerial Meeting on Minerals
AMS	ASEAN Member States
AOCP	AMCAP Online Collaboration Platform
APSMD	ASEAN Principles for Sustainable Minerals Development
ASOMM	ASEAN Senior Officials Meeting on Minerals
CBM	Capacity Building in Minerals
DPAMC	Development Prospects of ASEAN Minerals Cooperation
MID	Minerals Information and Database
METS	Mining Equipment, Technology and Services
OBS	Outcome-Based Strategies
R&D	Research and Development
SMD	Sustainable Minerals Development
TIM	Trade and Investment in Minerals
TOR	Terms of Reference
WGCBM	Working Group on Capacity Building in Minerals
WGMID	Working Group on Minerals Information and Database
WGSMD	Working Group on Sustainable Minerals Development
WGTIM	Working Group on Trade and Investment in Minerals
WebGIS	Web-based Geographic Information System

1. Introduction

Cooperation in the minerals sector plays an important role in achieving the goals and objectives of the ASEAN Economic Community Strategic Plan 2026–2030 (AEC Strategic Plan) and the overall ASEAN Community Vision 2045. This ASEAN Minerals Cooperation Action Plan 2026–2030 (AMCAP-IV) sets out how cooperation to sustainably develop and expand the extractive sector will support the implementation of the AEC Strategic Plan and achievement of its goals and objectives.

The AEC Strategic Plan includes two minerals-specific objectives:

- Pursue sustainable development of extractive industries.
- Expand upstream to downstream minerals and metals cooperation.

AMCAP-IV sets out how those objectives will be pursued and also identifies how the minerals and metals sector provide support across other components of the AEC Strategic Plan, notably ASEAN's needs for secure supply of minerals and metals.

As the acronym indicates, AMCAP-IV is the fourth such plan since the inception of the ASEAN Minerals Cooperation Action Plan (AMCAP) in 2005. Successive AMCAPs have served as the blueprint for ASEAN minerals cooperation to grow investment in sustainable minerals development within ASEAN, upstream, midstream, downstream, and sidestream and support broader economic growth. The Minerals Sector Plan was adopted by the 25th ASEAN Senior Officials Meeting on Minerals (ASOMM) and endorsed by the 10th ASEAN Ministerial Meeting on Minerals (AMMin) held in October 2025 in Vientiane, Lao PDR.

AMCAP-IV reflects the decisions of the 9th AMMin, held in November 2023 in Phnom Penh, Cambodia, including adoption of the ASEAN Principles for Sustainable Minerals Development (APSMD), and tasking of officials to develop a long-term vision, with 20-year timeframe or beyond, for ASEAN minerals development as a pathway to progressively developing the region as a regional investment destination for the minerals sector. The resulting ASEAN Minerals Development Vision (AMDV), plus the APSMD, are given effect through the provisions of AMCAP-IV and the actions of ASEAN Member States. AMCAP-IV provides the guiding and coordinating framework for implementation of the AMDV and APSMD.

2. AMCAP-IV

2.1. Development of AMCAP-IV

Development of AMCAP-IV was led by the AMCAP Task Force, made up of representatives from each ASEAN Member State and the ASEAN Secretariat. Representatives of Timor-Leste participated as observers. Malaysia chaired the Task Force throughout the preparation of AMCAP-IV.

The AMDV, APSMD, and AEC Strategic Plan guided the development of AMCAP-IV.

Extensive consultations were conducted among the Task Force members and between the Task Force and the ASOMM's Working Groups, namely: Working Group on Trade and Investment in Minerals (WGTIM), Working Group on Sustainable Minerals Development (WGSMD), Working Group on Capacity Building in Minerals (WGCBM), and Working Group on Minerals Information and Database (WGMID).

Consultations were also conducted with:

- Minerals ministries and other relevant line ministries and government bodies within ASEAN Member States and Timor-Leste.
- National and ASEAN-wide minerals industry associations and representatives of minerals companies.
- Non-government organisations with interests in minerals development.
- Partners in trade, investment and development, including: Plus Three Countries (China, Japan, Republic of Korea); World Bank; United Nations Economic and Social Commission for Asia and the Pacific (ESCAP); Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF); Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP), and other dialogue/development partners and collaborators.

Resourcing support for development of AMCAP-IV has been provided by:

- The United States Government, through the ASEAN-U.S. Partnership Program.
- United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).
- The United Kingdom, through Sustainable Energy for All (SEforALL).
- The World Bank.

2.2. Key Achievements of AMCAP-III Phase 2

The Final Term Review of the preceding AMCAP-III Phase 2: 2021–2025 presented by the AMCAP Task Force Chair at the 24th ASOMM held on 19–20 November 2024 in Bali, Indonesia, reported that: AMCAP-III Phase 2 has been implemented through 11 Outcome-Based Strategies and 30 Action Lines with 150 annual milestones.

The accomplishments made throughout AMCAP-III Phase 2 from 2021 to 2025 are summarised below by programme area.

2.2.1. Trade and Investment in Minerals (TIM)

The achievements of the TIM Programme were led by three decisions of AMMin that set the direction of ASEAN minerals cooperation efforts:

- Adoption by the 9th AMMin in November 2023 of the *Declaration on Promoting ASEAN as an Investment Destination for Sustainable Minerals Development* affirmed ASEAN's shared commitment to develop its mineral resources and contribute to securing an adequate and steady supply of metals and minerals to meet rising minerals demand and to fuel industrial expansion across ASEAN.
- Endorsement by the 9th AMMin of the *ASEAN Minerals Exploration Strategy* (version 1: 2023) or *AMEXS-1*, which provides a coordinated set of strategies for improving geological prospectivity in ASEAN from the investor's perspective, including a specific plan to collect and process the data that underpins the information base for marketing of investment in exploration in ASEAN.
- Adoption by the ASEAN Leaders at the ASEAN Summit in October 2025 of the *ASEAN Minerals Development Vision*, which envisions ASEAN as a leading destination for minerals investment, including in critical minerals, building production and trade through technological advancement, sound governance and best practices in sustainability, protecting the environment, empowering communities, and contributing to the region's economic development.

Three major studies delivered in 2021 and 2022 under oversight of the Working Group on TIM were:

- *Development Prospects of ASEAN Minerals Cooperation* (DPAMC), a detailed review of the effectiveness of cooperation efforts, which made recommendations to help define the future direction of ASEAN minerals cooperation.
- *Building Policy Prospectivity: Defining Policy, Regulation and Governance Standards to Attract Exploration Investment*, which identified challenges and opportunities for ASEAN minerals cooperation and measures required to improve policy prospectivity to complement measures to enhance geological prospectivity.

- The *Scoping Study on Critical Minerals Value Chains for ASEAN's Transition to A Low Carbon Future*, finalised in 2023 by IGF, identified enabling policy areas for the development of selected critical minerals value chains to support ASEAN countries in contributing to the transition to a low-carbon future.

Promoting ASEAN as a destination for minerals investment is a high priority. The ASEAN Minerals Forum was inaugurated in 2024, presented again in 2025 and is planned to continue as an ASEAN regional platform to connect government with industry players, investors and financiers to promote minerals investment in the region.

2.2.2. Sustainable Minerals Development (SMD)

Adoption of the *ASEAN Principles for Sustainable Minerals Development* (APSMD) by the 9th AMMin in 2023 is a key achievement of the SMD Programme. Implementation of APSMD will progressively improve minerals governance, and economic, social and environmental outcomes of minerals development in the region. The APSMD provides an essential foundation for the ASEAN Minerals Development Vision.

To support development of the AMDV and AMCAP-IV, and implementation of APSMD, ASEAN widened stakeholder engagement to seek greater inclusivity and the perspectives of government line ministries, the minerals industry, environmental, community and sustainability organisations, and universities and research bodies. Engagement of stakeholders is key to achievement of the AMDV and is built into implementation of AMCAP-IV and the APSMD.

The High-Level Dialogue on Promoting ASEAN as a Sustainable Minerals Investment Destination: Opportunities and Challenges in the Region's Critical Minerals Value Chains, organised in November 2023 within the ASEAN Ministerial Meeting on Minerals cooperation framework, served as an initial strategic platform for key stakeholders to exchange views on the region's minerals development. The dialogue addressed key challenges and opportunities, particularly in the area of critical minerals, and discussed recommendations to strengthen ASEAN's positioning as an attractive and sustainable destination for minerals investment.

Another achievement of the SMD Programme was organisation of Award Ceremonies of the ASEAN Mineral Awards (AMA) in 2023 and again in 2025, as part of the AMMin programme. The AMA recognise mining and minerals processing companies operating in the region which have made outstanding contributions towards sustainable minerals development in ASEAN.

Cooperation with the IGF deepened with the successful implementation of the ASEAN-IGF Minerals Cooperation Work Plan 2022–2024, successor to the initial work plan for 2019–2021. Various joint activities were implemented to promote sustainability in the region, notably in the organisation of the annual ASEAN-IGF Mining and Sustainability Forum, and Mine-Closure and Post-Mining Capacity Building for ASEAN.

Reflecting the action within ASEAN Minerals Development Vision to empower small-scale miners, IGF collaborated with ASEAN on workshops and a publication to advance the formalisation of artisanal and small-scale mining in the region to enhance environmental, health and safety, and socio-economic outcomes across the sector.

2.2.3. Capacity Building in Minerals (CBM)

The Work Programme on Improving ASEAN Capacities in Minerals Governance, adopted by the Working Group on CBM in 2023, affirmed ASEAN's commitment to strengthen regional capacities in three key priority areas: (i) minerals development policy, (ii) minerals regulation and oversight, and (iii) sustainable minerals development. The programme aims to promote the adoption of leading practices, enhance institutional and technical capabilities, and attract responsible and sustainable investment in the ASEAN minerals sector.

Implementation of this work programme will continue under AMCAP-IV, building on numerous capacity building activities that were undertaken under AMCAP-III Phase 2. These include: a Webinar on Efficient Green Mining Technology and Practices for Sustainable Mineral Resource Development (supported by the ASEAN Plus Three Cooperation Fund); a Training Workshop on Advancing Sustainable Resource Management: Enhancing Underground Mining and Mine Reclamation Expertise (supported by the ASEAN-Korea Economic Cooperation Fund); an ASEAN-IGF Mining and Climate Change Forum; an ASEAN-China Seminar on Green Mining Enterprise; and Training on ASEAN Project Proposal Development organised by the ASEAN Secretariat.

A major capacity-building initiative that will continue under AMCAP-IV is the ASEAN-Korea Project on Critical Minerals Management and Strategy for Sustainable Environment in ASEAN, which delivers a series of training courses and workshops for ASEAN officials to improve knowledge in critical minerals exploration, including in the use of smart exploration technology and real-time data platforms. More than 300 participants so far have gained better understanding and expertise in the field of critical minerals and their management. The Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) and Korea Institute of Geoscience and Mineral Resources (KIGAM) are the co-proponents and implementing agencies of the project, with the Geological Agency of Indonesia also a co-proponent.

Phase 2 of AMCAP-III marked significant broadening of engagement with new Dialogue and Development Partners as well as international organisations to support a wide range of initiatives across trade and investment promotion, sustainable minerals development, capacity-building, and enhancement of information systems and regional minerals database.

2.2.4. Minerals Information and Database (MID)

Under the MID Programme, Scoping and Analysis to Design an Enhanced ASEAN Minerals Information System (AMIS), finalised in 2021, outlined a refined purpose for the AMIS and provide recommendations for the design of an enhanced AMIS framework. The AMIS system is being restructured into a purpose-built IT platform with the support of the Australia for ASEAN Futures Initiative. Meantime, preparations for the content development have been commenced, including establishing specific working groups to oversee content development, namely:

- Landing Page Sub-Working Group.
- Web-GIS Sub-Working Group.
- AOCP Sub-Working Group.

The ASEAN-Korea Project on Critical Minerals Management and Strategy for Sustainable Environment in ASEAN is compiling and updating ASEAN Member States' geological and mineral occurrences maps to support the provision of datasets to more effectively attract investor attention and support development of minerals projects in the region, with an emphasis on critical minerals. This project supports the initial efforts of ASEAN to meet the minimum information requirements for pre-competitive and technical information to attract investor interest. The compiled data from this project will be loaded into the AMIS system for easy access by prospective investors and other stakeholders.

2.3. Directives and Guidance on ASEAN Minerals Cooperation

2.3.1. AEC Strategic Plan and Related Minerals Initiatives

AMCAP-IV is guided by the AEC Strategic Plan 2026–2030, as well as being guided by the ASEAN Minerals Development Vision (AMDV) and ASEAN Principles for Sustainable Minerals Development (APSMD).

AMCAP-IV is the sectoral plan for achieving the AEC Strategic Plan's two minerals-focused Objectives (2.3 and 3.1) and implements its four minerals-focussed Strategic Measures through AMCAP's four Programme Areas, each implemented under the oversight of Working Groups. Programme Areas guide cooperation that underpins growth of upstream and downstream investment and production and stimulates sustainable minerals development. Implementation of AMCAP-IV also supports achievement of many other Goals and Objectives of the AEC Strategic Plan.

How AMCAP-IV achieves the minerals Objectives and implements Strategic Measures of the AEC Strategic Plan is detailed in section 5 of this plan, which also includes examples of how AMCAP-IV supports other elements of the Strategic Plan. AMCAP-IV also gives effect to the AMDV and each of its elements (see section 2.4) and provides guidance and coordination for implementing the APSMD. APSMD are reflected in the AMDV and implemented through AMCAP-IV (see section 4.3).

AMCAP-IV continues and builds on the Outcome-Based Strategies and Action Lines of the preceding AMCAP-III Phase 2. AMCAP-IV also integrates three pre-existing ASEAN-wide minerals initiatives:

- Work Programme on Improving ASEAN Capacities in Mineral Governance.
- ASEAN Minerals Exploration Strategy version 1 (AMEXS-1).
- Enhancement of the ASEAN Minerals Information System (AMIS).

2.3.2. Policy directions from Ministers

The policy directions in the *9th AMMin Declaration on Promoting ASEAN as an Investment Destination for Sustainable Minerals Development*, adopted by the ASEAN ministers responsible for minerals cooperation on 23 November 2023 in Phnom Penh, Cambodia, include the following and have guided development of AMCAP-IV, as well as AMDV.

Secure mineral supply

Secure, adequate and steady supply of materials and mineral resources to meet the developmental requirements and to fuel industrial expansion across the region and encourage responsible sourcing of mineral inputs and products to enhance the region's competitiveness and continued access to global markets.

Promote greater accountability and transparency

Promote greater accountability and increased transparency to restore public confidence in mining and minerals development; by building the capacity of Member States in minerals resource governance, including in (i) crafting minerals-related monetary and fiscal policies; (ii) regulation and oversight such as through the permitting process, mines inspection and revenue verification; and (iii) in sustainable development practices such as on environmental performance and stakeholder engagement.

Adopt clear and consistent policy directives

Adopt clear and consistent policy directives and ensure good regulatory practice that stimulate responsible mining across all aspects of the minerals value chain, thereby boosting domestic and international investments, ensuring the sustainable management of the region's mineral resources, optimising benefits for communities and national economies in the region, and aiding the resource sector's recovery from the global pandemic.

Create opportunities for regional collaboration and external partnerships

Create opportunities for regional collaboration and external partnerships towards aligning mining sector policies, incentives and taxation; standardising minerals resource information; diligently implementing the ASEAN Minerals Exploration Strategy; and sustaining the systematic availability of resource and trade information through modern information systems, within a coordinated set of strategies for improving ASEAN's policy and geological prospectivity from the investor's perspective.

Promote joint minerals exploration and R&D

Promote joint minerals exploration and research & development in technological innovation, including in digitalisation and artificial intelligence, materials efficiency, green or environmentally efficient technologies, in exploration, mining and processing operations across the region, to discover new resources, maximise value-add, and harness new market opportunities.

Reinforce attractiveness for minerals trade and investment

Reinforce the region's attractiveness as a minerals trade and investment destination by including minerals development as a priority investment area and as part of Member States' priority investment lists and advocate for sustainable practice and responsible business conduct, thereby improving the receptiveness to, and public confidence in the mining industry's contribution to national development.

Implement ASEAN Principles for Sustainable Minerals Development

Translate the *ASEAN Principles for Sustainable Minerals Development* (APSMD) adopted during the 9th AMMin in November 2023, into tangible programmes and projects, which comprehensively and carefully balance the impacts of mineral exploration and development to communities, peoples and the environment, and underpin the achievement of UN Sustainable Development Goals.

Adopt a continual improvement strategy in investor and partner engagement

Adopt a continual improvement strategy in investor and partner engagement, including through the conduct of a regular ASEAN Minerals Business and Stakeholders Forum and other similar fora, and enhance opportunities for broader engagement with ASEAN minerals stakeholders to encourage inclusive discussions and robust formulation of ASEAN minerals cooperation initiatives.

Develop an ASEAN Minerals Development Vision

Task the ASEAN Senior Officials on Minerals and its Working Groups to develop an ASEAN Mining Vision (now the *ASEAN Minerals Development Vision* - AMDV) as a pathway to progressively developing the region as a regional investment destination, with potential to contribute to diversifying global supply chains, which will provide a strategic regional approach to meeting minerals security in the region, including to manage the short-term impacts and longer-term challenges of minerals market fluctuations, chart stakeholder roles and responsibilities, and frame the preparation of the post-2025 ASEAN Minerals Cooperation Action Plan.

2.4. Realising ASEAN Minerals Development Vision

The AMDV defines a pathway to progressively developing the region as a regional investment destination, contributing to diversified, secure and sustainable global supply chains, providing a strategic approach to meeting minerals security in the ASEAN region, including managing the short-term impacts and longer-term challenges of minerals market fluctuations. It charts stakeholder roles and responsibilities and frames the preparation of AMCAP-IV and successive action plans.

AMCAP-IV is the initial 5-year implementation and coordination mechanism for delivery of the long-term AMDV, which is summarised in Figure 1.

2.5. Responding to Global and ASEAN Minerals Trends

As noted by Ministers at the 9th AMMin in 2023, there are the shifting patterns of global minerals demand and growing intensity of minerals use, primarily driven by the transition towards low-carbon emission technologies, including renewable energy, energy storage and electrification of transport, plus digital technologies, while minerals demand from traditional industries continues to be driven by manufacturing, construction and agriculture.

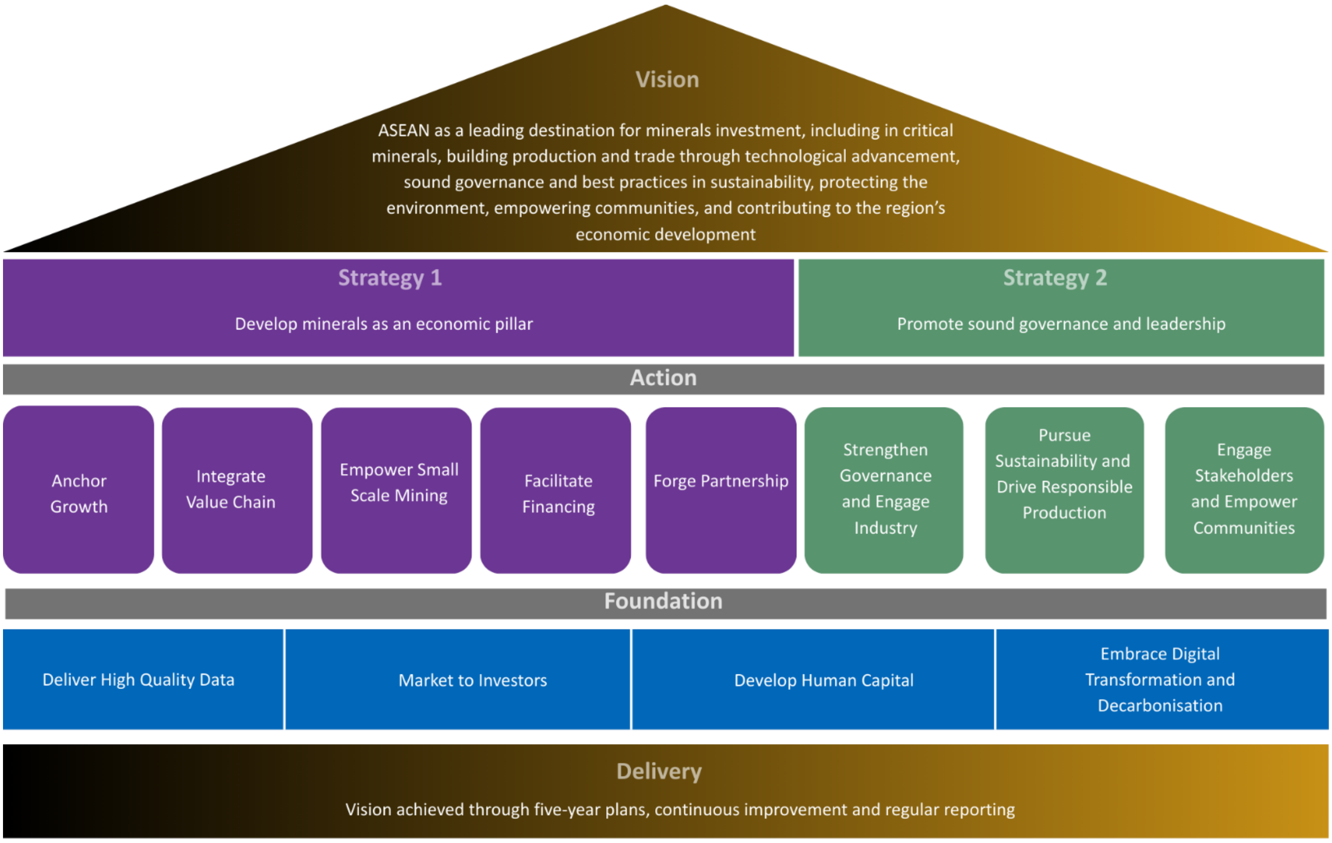


Figure 1. Summary of the ASEAN Minerals Development Vision (AMDV)

At the same time, markets increasingly are seeking minerals that are produced, processed and supplied via more secure and sustainable supply chains. Impending global industry standards will provide benchmarks for sustainable production, while several producer and customer nations are collaborating to diversify and secure supply chains and are exploring how preferential offtake arrangements can be implemented. Effective implementation of the APSMD will provide ASEAN with a platform to meet sustainability standards.

The International Energy Agency (IEA)[1] forecasts that global demand for critical minerals needed for the energy transition will at least double by 2030 (under the "Stated Policies Scenario") with higher demand forecast under more intensive policies to reduce emissions. Under a Net Zero Emissions by 2050 scenario, the IEA forecasts that the combined market value of key energy transition minerals—copper, lithium, nickel, cobalt, graphite and rare earth elements—will more than double to reach US$770 billion by 2040.

ASEAN has committed to ensure that it remains resilient, effective and responsive to future regional and global challenges, while at the same time exerting efforts to strengthen ASEAN's capability as "an Epicentrum of Growth", in which minerals play an important role.

As summarised in Table 1, ASEAN plays a significant role in the global supply of various mining commodities. ASEAN Member States are major producers and refiners of metals and minerals, including critical and strategic minerals that are needed to enable clean energy and digital transitions. ASEAN's contribution to the global commodities market is particularly notable in nickel production, accounting for 59.1% of the world's total, and tin at 39.8%. ASEAN also contributes to the production of other key commodities, including bauxite (aluminium ore) at 8.6%, gold at 4.9%, and copper at 4.8%. In addition to metal commodities, ASEAN supplies 4.0% of the global kaolin market.

ASEAN Mining Ministers, however, have also noted that investment in minerals exploration, mining and processing in ASEAN has not kept pace with investment in other sectors that utilise minerals, potentially leading to a shortfall in supply of minerals and metals from ASEAN Member States for manufacturing, construction and agriculture within ASEAN. Lagging investment also threatens ASEAN's aspirations to become a key player in global minerals supply chains.

Table 1. Selected minerals of which ASEAN generates a large proportions of world production

COMMODITY	unit	**Mineral Production**						
		2018	2019	2020	2021	2022	World 2022	%
METALS								
Nickel	metric tons	971,966	1,196,325	1,117,572	1,474,047	1,934,000	3,270,000	**59.1**
Tin	metric tons	147,332	141,199	111,668	100,291	122,239	307,000	**39.8**
Aluminium (Bauxite)	metric tons	17,332,684	20,843,561	30,034,714	29,497,577	34,239,826	400,000,000	**8.6**
Gold	kg	163,326	140,298	95,535	119,176	151,394	3,060,000	**4.9**
Copper	metric tons	992,133	729,192	864,856	868,686	1,059,009	21,900,000	**4.8**

[1] IEA 2024, Global Critical Minerals Outlook 2024, International Energy Agency, Paris, https://www.iea.org/reports/global-critical-minerals-outlook-2024

COMMODITY	unit	Mineral Production 2018	2019	2020	2021	2022	World 2022	%
Manganese	metric tons	815,900	979,300	867,670	632,000	747,320	19,800,000	3.8
Lead	metric tons	159,040	157,450	135,200	146,670	152,500	4,460,000	3.4
Silver	kg	377,789	553,896	395,095	455,895	517,983	25,600,000	2.0
Iron Ore	metric tons	8,738,196	11,267,300	10,233,342	11,790,198	9,013,198	1,560,000,000	0.6
Zinc	metric tons	53,780	59,450	40,360	41,900	53,750	12,500,000	0.4
NON-METALS								
Kaolin	metric tons	1,919,282	3,199,534	2,213,554	2,058,516	2,072,217	51,900,000	**4.0**
Salt	metric tons	5,595,766	5,820,913	4,394,294	3,941,576	3,611,143	270,000,000	1.3
Limestone	metric tons	2,953,629	3,023,058	2,759,250	2,881,000	2,812,000	430,000,000	0.7
Talc	metric tons	58,676	14,564	38,146	31,950	30,369	7,130,000	0.4
Phosphate	metric tons	1,300,896	665,740	541,570	591,000	532,070	228,000,000	0.2

Source: United States Geological Survey, data as of 2 April 2025

ASEAN Leaders and Minerals Ministers have recognised the long-term growth potential afforded by a more minerals-intensive future and thus wish to undertake concerted efforts to seize opportunities to attract investments in all stages of the minerals value chain, while enabling implementation of leading practices in all aspects of minerals policy, regulation and governance, including sustainable minerals development.

Ministers have agreed to enhance ASEAN minerals cooperation to help ASEAN Member States benefit from the evolving global commodity markets and at the same time respond to the imperatives of the low-carbon energy transition and digital age, which will strengthen not only ASEAN's external trade but also intra-ASEAN trade and investment.

Ministers recognise that to become more attractive to minerals investors, ASEAN must improve both its geological prospectivity and its policy prospectivity.[2]

Ministers support the adoption of clear and consistent policy statements and objectives for minerals development across ASEAN and within each ASEAN Member State, with the aim of helping transform the region into a competitive production and processing hub that is underpinned by an increasingly integrated market and a strong talent pool.

ASEAN also has the opportunity to take advantage of shifts by global minerals markets to more diverse, secure and sustainable supply chains. Demonstrating that ASEAN Member States can meet these criteria provides a challenging but achievable goal. ASEAN can also take advantage of competition between consumer nations for minerals supply by fostering partnerships, attracting investment and concluding preferential supply agreements.

[2] **Geological prospectivity:** The likelihood of the occurrence of valuable minerals now and in the future, integrating diverse geological factors and based on geological processes and features indicating them.
Policy prospectivity: The extent to which ASEAN and AMS policy and regulatory environments for minerals exploration and development operate alongside geological prospectivity to attract investment, generate commercial returns to investors and deliver lasting benefits.

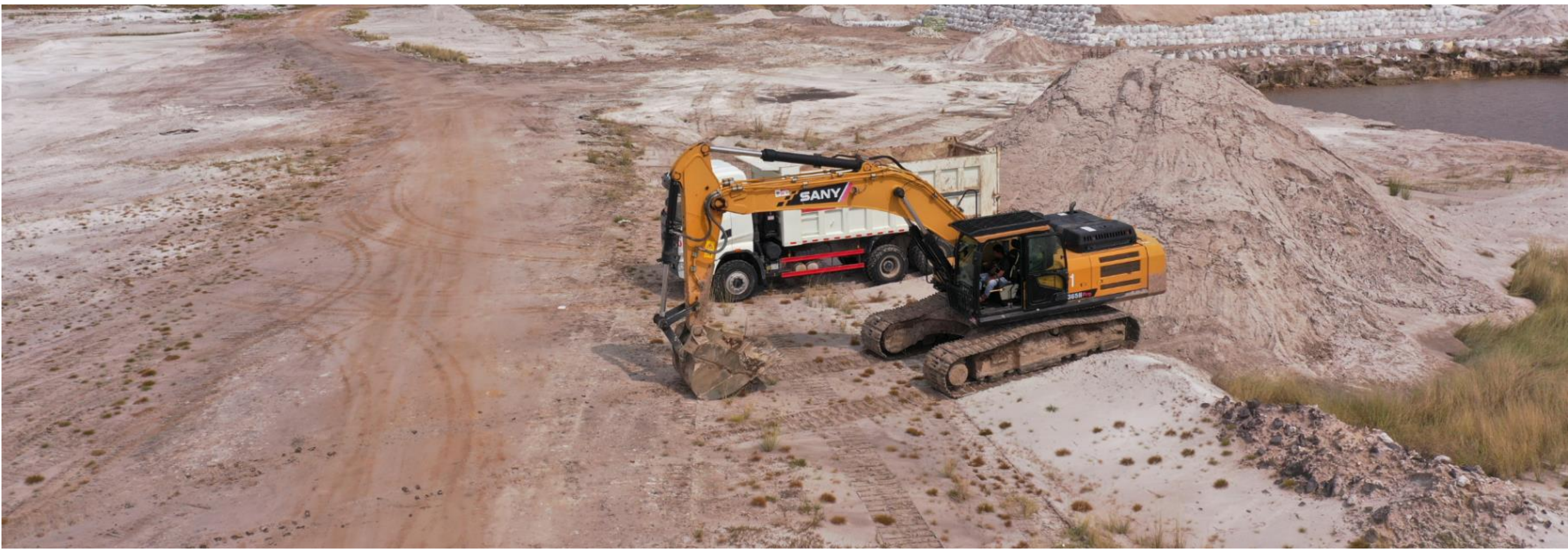
A strong and technically advanced minerals industry can also support and be supported by a growing mining equipment, technology and services (METS) sector. METS provide an additional pathway to value addition though growth of knowledge and technology-rich capabilities, and local and regional capture of economic benefits.

3. Objectives Of AMCAP-IV

The objectives of AMCAP-IV are as follows:

1. Achieve the minerals objectives of the AEC Strategic Plan:
    - Pursue sustainable development of extractive industries.
    - Expand upstream to downstream minerals and metals cooperation.[3]
2. Through growth of minerals investment, production and trade, facilitate achievement of relevant Strategic Goals and Objectives of AEC Strategic Plan, positioning minerals development as a key component of ASEAN economic integration.
3. Contribute to achievement of the ASEAN sustainability agenda, including the Circular Economy Framework, Carbon Neutrality Strategy and Blue Economy Framework, through implementation of the ASEAN Principles for Sustainable Minerals Development (section 4.3).
4. Implement an ASEAN-wide strategic regional approach to implementing all elements of the AMDV (section 2.4) to:
    - Achieve minerals security.
    - Extract and process minerals sustainably.
    - Build community understanding and support.
    - Provide an in-depth understanding of the resources and prospects available in the region.
    - Manage short- and long-term minerals market fluctuations.
    - Facilitate cooperation at the regional level, mapping out each country's strengths and identify niche areas for each ASEAN Member State to potentially cooperate on.
    - Identify of the most economically feasible strategies for collaboration.
    - Define stakeholder roles and responsibilities.

[3] Principal mineral industry supply chain segments are
Upstream: exploration, mine development, mine operation, primary processing at minesite
Midstream: secondary processing (e.g., smelting and refining of concentrates into metals)
Downstream: Production of minerals-based chemicals, highly refined metals and alloys for inputs to complex manufacturing
Sidestream: manufacture and supply of equipment, provision and application of technology, and supply of services to the minerals industry



4. How AMCAP-IV Supports the AEC Strategic Plan

4.1. Achieving Minerals Goals and Objectives

Table 2 sets out how AMCAP-IV supports achievement of two Goals and the two minerals Objectives of the AEC Strategic Plan.

Table 3 provides detailed descriptions of the two Objectives. The discussion in section 4.2 describes and provides examples of how AMCAP-IV also contributes to achievement of other Goals and Objectives of the AEC Strategic Plan and for the ASEAN sustainability agenda.

Table 2. Articulation between AEC Strategic Plan and AMCAP-IV

AEC Strategic Plan	Strategic Measures in AEC Strategic Plan and AMCAP-IV	Key Outcome Indicators in AEC Strategic Plan and AMCAP-IV
STRATEGIC GOAL 2. A SUSTAINABLE COMMUNITY **Engendering and mainstreaming climate-responsive elements and policies in all dimensions.** **Objective 2.3. Pursue sustainable development of extractive industries.**	**2.3.1.** Advance comprehensive and progressive implementation of sustainable minerals development principles and leading practices across ASEAN Member States to progressively improve governance and economic, social, and environmental outcomes.	Implement ASEAN Principles for Sustainable Minerals Development through a comprehensive program integrated with AMCAP-IV to achieve progressive improvement in sustainable development outcomes.
STRATEGIC GOAL 3. **AN ENTERPRISING, BOLD, AND INNOVATIVE COMMUNITY**	**3.10.1.** Strengthen trade and investment-related frameworks and strategies to boost domestic and international sustainable investments in all components of the minerals value chain across ASEAN	Increased investment and output, upstream, midstream and downstream, enabled by stronger governance capacity and better availability of quality data ASEAN-wide.

Enhancing sectoral cooperation, attuned to emerging trends and developments. **Objective 3.10: Expand upstream to downstream minerals and metals cooperation.**	Member States to build ASEAN's resource base, expand production and trade, and generate sustainable value for ASEAN Member States.	
	3.10.2. Strengthen human, institutional, and technical capacities in minerals governance, technologies, R&D, and innovation in the ASEAN minerals sector to facilitate increased investment; higher production, utilisation, and trade in minerals; and sustainable development outcomes.	
	3.10.3. Regularise a robust knowledge management and data collection protocol for the ASEAN minerals information system to improve the quality and availability of minerals data and related information to promote investment and inform decision-making.	

Table 3. Description of Minerals Objectives of AEC Strategic Plan and AMCAP-IV

Minerals Objectives in AEC Strategic Plan and AMCAP-IV	Detailed description
Objective 2.3. Pursue sustainable development of extractive industries.	ASEAN is committed to fostering sustainable minerals development. This commitment is underpinned by the principles of good governance, proper environmental stewardship, social responsibility, economic value, and commercial viability. By implementing transparent governance frameworks, promoting leading practices in mining operations, and embracing innovation in sustainable technologies, ASEAN aims to position itself as a destination for sustainable minerals development, and as a regional hub for minerals trade. Recognising the importance of responsible resource management, ASEAN strives to ensure the long-term health of ecosystems and communities while developing extractive industries that are conducive to attracting investment.
Objective 3.10. Expand upstream to downstream minerals and metals cooperation.	Inclusive and effective cooperation in both upstream and downstream minerals and metals investment, production, and trade requires a multifaceted approach. By implementing sound governance and actively promoting investment in exploration, extraction, and processing of minerals, ASEAN can attract responsible capital, technology, and expertise

	to develop its mineral sector sustainably. Enhancing governance capacity through training and knowledge exchange will empower ASEAN Member States to adopt leading practices, increase investment, and enhance outcomes. Establishing robust research and data frameworks will provide critical insights into the region's mineral potential, facilitate informed decision-making, and foster collaboration among stakeholders.

4.2. Contributions To Achieving Other Goals and Objectives Under the AEC Strategic Plan

The minerals industry is already a major sector of the ASEAN economy. Through growth of minerals investment, production, and trade, with high sustainability performance, the minerals industry will contribute to achievement of other goals and objectives of the AEC Strategic Plan. Table 4 provides examples of how actions under AMCAP-IV can enhance minerals industry economic impact.

Table 4. Examples of how AMCAP-IV contributes to wider AEC Strategic Plan

Strategic Goal	Selected Objectives	Examples of AMCAP-IV contribution
1: AN ACTION-ORIENTED COMMUNITY – Realising an integrated single market and production base with new sources of competitiveness.	**1.1.** Bolster intra-ASEAN trade in goods.	Increased ASEAN minerals production will increase intra-ASEAN trade and supply to ASEAN manufacturing.
	1.3. Achieve ASEAN as an attractive investment destination.	Minerals development cooperation and reform will enhance ASEAN's attractiveness for minerals investment.
2. A SUSTAINABLE COMMUNITY – Engendering and mainstreaming climate-responsive elements and policies in all dimensions.	**2.8.** Engender awareness and capacitate ASEAN businesses, regulators, financial institutions, and policymakers towards green transition.	Implementation of the ASEAN Principles for Sustainable Minerals Development, and capacity-building and incentives will support progress towards the green transition.
3. AN ENTERPRISING, BOLD, AND INNOVATIVE COMMUNITY – Enhancing sectoral cooperation, attuned to emerging trends and developments.	**3.9.** Advance inclusive, innovative, competitive business environment to strengthen MSMEs integration in the regional and global value chains.	Implementation of AMCAP-IV will include actions to engage, empower and build capacity of artisanal and small-scale miners in ASEAN.
4. AN ADAPTABLE AND PRO-ACTIVE COMMUNITY – Strengthening Global ASEAN agenda.	**4.3.** Elevate ASEAN's position in the global value chain.	Minerals exploration, mining and processing, plus minerals-based manufacturing make up the largest global value chain.

Strategic Goal	Selected Objectives	Examples of AMCAP-IV contribution
5. A NIMBLE AND RESILIENT COMMUNITY – Strengthening Global ASEAN agenda.	**5.1.** Secure a stable and resilient supply chain.	Greater production of minerals within ASEAN will strengthen supply chains for manufacturing, construction agriculture.

4.3. Implementation of APSMD and Contributions to ASEAN Sustainability Agenda

AMCAP-IV is the key coordination mechanism for delivery of the *ASEAN Principles for Sustainable Minerals Development* and through that, the full ASEAN sustainability agenda, including:

- Framework for Circular Economy for the ASEAN Economic Community.
- ASEAN Strategy for Carbon Neutrality.
- ASEAN Blue Economy Framework.
- Table 5 provides examples of how AMCAP-IV contributes to delivery of the ASEAN sustainability agenda.

The ten APSMD in summary are as follows.

1. Integration with national sustainability frameworks 2. Apply sustainable development to all mineral activities 3. Transparency and stakeholder engagement 4. Outcomes-based approaches 5. Social performance	6. Protection of health and safety 7. Environmental performance 8. Responsible production 9. Adaptation and continuous improvement 10. Capacity in mineral governance.

Implementation of APSMD is led by the Working Group on Sustainable Minerals Development (WGSMD) and is integrated within all the Outcome-Based Strategies and Action Lines of AMCAP-IV across all four Programme Areas (section 5.2.).

While the Sustainable Minerals Development Programme Area is the primary avenue for implementation of relevant Strategic Measures and Action Lines, the other three Programme Areas have key roles to play in achieving sustainable minerals development. Sustainability must be integrated into all aspects of minerals development to achieve desired outcomes.

Table 5. Examples of how AMCAP-IV contributes to delivery of the ASEAN sustainability agenda

ASEAN sustainability agenda	AMCAP-IV implementation
Framework for Circular Economy[4]	Circularity is integrated across the full minerals value chain from exploration to mining to end-use of products. ASEAN Principles for Sustainable Minerals Development include circularity in the use, re-use, recycling and disposal of products containing metals and minerals. Implementation of AMCAP-IV supports all five strategic priorities of the Framework for Circular Economy.
Strategy for Carbon Neutrality[5]	Supporting the minerals sector to move towards carbon neutrality is a priority of AMCAP-IV. Several metals produced within ASEAN are critical to the transition to renewable energy and to energy-saving technologies. AMCAP-IV facilitates development of common standards for the ASEAN minerals sector and supports its adoption of leading practices, including low-carbon strategies and technologies. Capacity-building through technology sharing, human capital development, institutional strengthening, and improvements to minerals governance includes building minerals sector capabilities in lower carbon operations.
Blue Economy Framework[6]	AMCAP-IV is compatible with the three guiding principles of the framework: • Economic value creation while responsibly utilising ocean and inland water resources. • Inclusivity, ensuring all stakeholders can access benefits of sustainable resource utilisation equitably from oceans and inland waters and are engaged in decision-making processes. • Sustainability, protecting environments and ensuring flows of social benefits to current and future generations.

[4] https://asean.org/wp-content/uploads/2021/10/Brochure-Circular-Economy-Final.pdf
[5] https://asean.org/wp-content/uploads/2023/08/Brochure-ASEAN-Strategy-for-Carbon-Neutrality-Public-Summary-1.pdf
[6] https://asean.org/wp-content/uploads/2023/09/ASEAN-Blue-Economy-Framework.pdf

5. AMCAP-IV Programme Areas

5.1. Implementation of Strategic Measures

5.1.1. Overall Theme (Objectives Tier) of AMCAP-IV

Reflecting the ASEAN Minerals Development Vision 2045, the Overall Theme of AMCAP-IV for 2026–2030 is:

> ***To position the minerals sector as a key pillar of ASEAN's economy by expanding collaboration in upstream to downstream minerals development, advancing sustainable practices and technology adoption, and building human capacity to foster responsible investment, production and trade across the value chain.***

AMCAP-IV will be implemented through four Programme Areas by Working Groups as follows:

i. Trade and Investment in Minerals (TIM).
ii. Sustainable Minerals Development (SMD).
iii. Capacity Building in Minerals (CBM).
iv. Minerals Information and Database (MID).

Actions to implement Strategic Measures of the AEC Strategic Plan and AMCAP-IV by each Working Group are set out in Table 6.

Three ASEAN-wide minerals initiatives that were being implemented prior to the AMCAP-IV will be integrated and enhanced within AMCAP-IV. They are:

- ASEAN Minerals Exploration Strategy (AMEXS).
- Enhancement of the ASEAN Mineral Information System (AMIS).
- Work Programme on Improving ASEAN Capacities in Mineral Governance.
- Regional Capacity Building Rolling Programme for AMCAP.

In line with the Strategic Measures, ASEAN Member States agreed to design the Outcome-Based Strategies and Action Lines of each of the Programme Area with due consideration to the global and regional minerals trends as well as minerals development prospects of ASEAN from the analysis and findings of the DPAMC review.

Table 6. Implementation of Strategic Measures by Programme Area

Programme Areas	Strategic Measures
Trade and Investment in Minerals (TIM)	Strengthen trade and investment related frameworks and strategies to boost domestic and international sustainable investments in all components of the minerals value chain across ASEAN Member States to build ASEAN's resource base, expand production and trade, and generate sustainable value for Member States.
Sustainable Minerals Development (SMD)	Advance comprehensive and progressive implementation of sustainable minerals development principles and leading practices across ASEAN Member States to progressively improve governance and economic, social and environmental outcomes.
Capacity Building in Minerals (CBM)	Strengthen human, institutional and technical capacities in minerals governance, technologies, R&D and innovation in the ASEAN minerals sector to facilitate increased investment; higher production, utilisation and trade in minerals; and sustainable development outcomes.
Minerals Information and Database (MID)	Implement a robust knowledge management and data collection protocol for the ASEAN minerals information system to improve the quality and availability of minerals data and related information to promote investment and inform decision-making.

5.2. Outcome-Based Strategies and Action Lines

5.2.1. Trade and Investment in Minerals (TIM) Programme Area

The TIM Programme area aims to boost domestic and international investments in all components of the minerals value chain—upstream, midstream, downstream and sidestream—across ASEAN Member States, reverse the downward trend of investment flows to the ASEAN minerals sector and increase production to supply ASEAN and global customers. Key to this is promoting ASEAN as a minerals investment destination to stimulate the development of the region's minerals resources, in terms of both production and trade. To achieve this, ASEAN must ensure that it is competitive with other global investment destinations in attracting investment in exploration, mining and processing. This encompasses adoption of leading practices in minerals policy, governance and sustainability, and enhancing both geological and policy prospectivity.

ASEAN will adopt a continual improvement strategy in investor and partner engagement and in making quality information on ASEAN minerals development available. ASEAN will also pursue investment promotion targeting domestic and international companies in all stages of the minerals value chain, plus the mining equipment, technology and services sector.

The Outcome-Based Strategies (OBS) of the TIM Programme Area for the period of 2026–2030 are set out against Strategic Measures in Table 7. TIM Action Lines are listed against OBS.

Table 7. TIM Key Focus, Outcome-Based Strategies and Action Lines

Strategic Measure	Outcome-Based Strategies	Action Lines
Strengthen investment and trade related frameworks and strategies to boost domestic and international sustainable investments in all components of the minerals value chain across ASEAN Member States to build ASEAN's resource base, expand production and trade, and generate sustainable value for Member States.	**TI1** – Increase ASEAN's competitiveness as a destination for sustainable minerals investment and trade across all stages of the minerals value chain, including exploration, mining and processing.	**TI1.1** – Implement the *9th AMMin Declaration on Promoting ASEAN as an Investment Destination for Sustainable Minerals Development*, recognising minerals development as a key sector within the AEC Strategic Plan, by continuing to adopt clear and consistent policy statements and goals across ASEAN regarding minerals development, including for critical minerals, that are welcoming of investment, and seek high standards of minerals governance and development within sustainable development parameters.
		TI1.2 – Develop a roadmap to attract domestic and international investment in minerals exploration and development, identifying and addressing impediments to investment and barriers to sustainable minerals development, and supporting harmonisation of minerals policies and regulation across ASEAN Member States.
		TI1.3 – Develop a strategy to enhance ASEAN's role in regional and global minerals supply chains and increase trade to take advantage of shifts in demand for both new and traditional commodities and manufactured products to respond to

Strategic Measure	Outcome-Based Strategies	Action Lines
		a minerals-intensive, low carbon and high technology future.
	TI2 – Promote investment by ASEAN-based and international companies across all stages of the minerals value chain.	**TI2.1** – Develop ASEAN mineral investment prospectus/ guidebook to promote mineral investment and containing information on resources, facilities, infrastructure, trade agreements, investment opportunities, overviews of policy and regulation for each AMS, and contact information of authorities in each AMS.
		TI2.2 – Engage minerals companies globally through: an ASEAN mining conference/forum; ASEAN participation in global minerals conferences, forums and other similar events; and by providing comprehensive, consistent and readily available information on mineral and policy prospectivity, the investment environment and opportunities across ASEAN and within ASEAN Member States.
		TI2.3 – Develop and implement a strategy to expand minerals and metals investment and production within ASEAN, at all stages of the value chain, integrated with ASEAN-based manufacturing and as part of an ASEAN circular economy in minerals and metals.
		TI2.4 – Facilitate peer-to-peer information exchange and collaboration opportunities among governments, businesses and international partners to share experiences, leading practices and lessons in attracting minerals investment.

Strategic Measure	Outcome-Based Strategies	Action Lines
	TI3 – Ensure continual improvement in lifting investment competitiveness and in promoting investment.	**TI3.1** – Develop a set of initiatives through peer-to-peer learning and collaboration opportunities for: businesses, governments, NGOs and international partners to pursue continuing policy improvement; and to provide information on geological and policy prospectivity in ASEAN, based on shared leading practices and experience of AMS and advanced mining countries in such matters as regulation, human resources, mining royalties and taxation and benefit sharing.
		TI3.2 – Work with minerals investors and financiers to facilitate financing and develop models for financing and risk mitigation that are tailored for both ASEAN and investment markets, and that integrate commercial viability with environmental and social accountability.
		TI3.3 – Establish a platform and partnerships to: better understand and monitor markets and trends for minerals and metals production, consumption and trade in ASEAN and globally; and to inform policies and investment attraction initiatives and provide benchmarks for monitoring of progress.

5.2.2. Sustainable Minerals Development (SMD) Programme Area

The outlook for minerals demand in ASEAN and globally is enhanced by decarbonisation, led by the transition to renewable energy, plus digitalisation and complex manufacturing. Other end uses such as urbanisation, infrastructure and agriculture will continue to increase demand for minerals also. Increasingly, customers for minerals are also seeking secure and sustainable supply chains to assure reliability of supply and impacts that meet environmental, social and economic goals.

The AMCAP-IV recognises the fundamental needs for ASEAN to improve environmental, social and economic outcomes from minerals development as well as lifting investment in all stages of the value chain, by adopting leading practice in all aspects of mining policy, regulation and governance. These leading practice areas will include responsible sourcing, mineral supply security, reduced emissions from minerals supply chains, resource use efficiency, support for evolving efforts to contribute to a more circular economy, lowering of environmental impacts and risks, and the imperatives for obtaining social licence.

The primary focus for the Programme Area on Sustainable Minerals Development is on implementation of the ASEAN Principles for Sustainable Minerals Development (APSMD) to deliver a comprehensive SMD framework and implementation plan to support the ASEAN Sustainability Agenda and delivery of the ASEAN Mining Vision. This will involve broad stakeholder engagement and implementation of leading practices to improve minerals governance, and socio-economic and environmental sustainability of the minerals sector in ASEAN to ensure minerals' multigenerational contribution to society and socio-economic welfare.

The SMD Programme Area will also cover the design and adoption of non-financial incentives that can be used by ASEAN and within ASEAN Member States to promote and encourage adoption of SMD amongst minerals associations, minerals companies, financiers, and NGOs. It will also cover assistance to AMS to implement capacity building for SMD (as part of the CBM Programme Area), including supporting the progressive adoption and implementation of the SMD Programme Area.

The Outcome-Based Strategies and Action Lines of the Programme Area on Sustainable Minerals Development for the AMCAP-IV are planned as set out in Table 8.

Table 8. Key Focus, Outcome-Based Strategies and Action Lines

Strategic Measure	Outcome-Based Strategies	Action Lines
Advance comprehensive and progressive implementation of sustainable minerals development principles and leading practices across ASEAN Member States to progressively improve governance and economic, social and environmental outcomes.	**ES1** – Implement the ASEAN Principles for Sustainable Minerals Development (APSMD) progressively to deliver a trajectory of improvement in sustainability outcomes.	**ES1.1** – Work with AMS, dialogue and development partners and the minerals industry to develop comprehensive implementation plans for the APSMD to suit each ASEAN Member State, for progressive adoption and periodic reporting of activities, outputs and outcomes, including take-up and impacts within the minerals sector.
		ES1.2 – Establish frameworks and guidelines for implementing APSMD and for engaging with local communities on exploration, and extraction and processing of minerals, to enhance sustainability and social responsibility, and

Strategic Measure	Outcome-Based Strategies	Action Lines
		support governments and the minerals sector.
		ES1.3 – Establish a communication network to facilitate dialogue with and among ASEAN Member States, sub-national governments, industry players in minerals and relevant non-government stakeholders to engage them in and build support for sustainable minerals development objectives, principles, policies and practices, and implement APSMD.
		ES1.4 – Develop a programme to support artisanal and small-scale miners to help them improve commercial, social and environmental performance, and seek support from AMS and development partners for implementation, coordinating with the CBM Working Group.
	ES2 – Design and enhance incentives that can be used by ASEAN and within ASEAN Member States to encourage implementation of SMD amongst~~,~~ minerals companies, financiers, associations, and relevant non-government actors.	**ES2.1** – Raise the profile of the biennial ASEAN Mineral Awards as an incentive for adoption of leading practices in SMD and publish documentation to create awareness.
		ES2.2 – Create opportunities for AMS and leading practice nations to share experiences and best practices in crafting innovative incentives for responsible citizenship and collaborations, and for encouraging adoption of SMD practices.
		ES2.3 – Cooperate with global industry bodies to promote adoption by minerals companies of global leading practices, including the new Consolidated Mining Standard, thereby actively encouraging companies that adopt

Strategic Measure	Outcome-Based Strategies	Action Lines
		leading practices to invest in ASEAN.
		ES2.4 – Encourage AMS recognition of minerals companies that have adopted leading practices and consistently demonstrate such practices in sustainability through such concessions as accelerated assessment and approval processes, and more light-handed regulatory oversight.
	ES3 – Advise and assist the WGCBM with SMD aspects to ensure the capacity building program supports and is integrated with the progressive implementation of the APSMD.	**ES3.1** – Advise on implementation of CBM IH1.1 (minerals governance) and IH 1.2 (sustainable development practice and technologies) to support the SMD programme focus implementing the APSMD.
		ES3.2 – Help guide and implement CBM IH2.1 (innovative technologies such as digitalisation, low carbon, circular and resource-efficient technologies in mining and processing operations) to achieve the SMD programme focus of building support for and implementation of sustainable technologies and leading practices.

5.2.3. Capacity Building in Minerals (CBM) Programme Area

The Minerals Sector Plan continues, expands and guides cooperation between ASEAN Member States to achieve their goals in minerals, working with dialogue and development partners, the minerals sector, and relevant non-government actors, including the private sector, civil society, and research and educational institutions. Under this Programme Area, a comprehensive capacity-building program, which supports activities on trade and investment (TIM) and sustainable mineral development (SMD), will be undertaken for the benefit of multilevel stakeholders.

The main needs for CBM are 1) to enable implementation of sound governance in mining regulation and administration, and 2) support implementation of APSMD. Governance capacity limitations are consistently identified by the minerals industry and in turn are cited as principal barriers to attracting investment in exploration, mining and mineral processing activities. They also inhibit achievement of improved sustainability outcomes from minerals development. The adoption of APSMD by ASEAN as a foundation of minerals policy and investment attraction creates an implementation imperative that is being prioritised within AMCAP-IV and requires extensive capacity-building support.

To enable AMS to address the limited human capital and some institutional impediments within ASEAN to improving governance capacity and implementation, OBS and Action Lines are designed to increase human capacities and capabilities in minerals governance across the value chain and in SMD. Priority aspects and specialised areas are further enhanced in each OBS and Action Lines, which are targeted to improve regional institutional and technical capabilities with a programmatic approach to activities in a longer-term framework. To ensure overall consistency, the CBM programme will also manage and monitor the effective implementation of AMCAP-IV with its main role of coordinating all activities across the plan's programme areas.

The Outcome-Based Strategies and Action Lines of the Programme Area on Capacity Building in Minerals for 2026–2030 are formulated as set out in Table 9:

Table 9. CBM Key Focus, Outcome-Based Strategies and Action Lines

Strategic Measure	Outcome-Based Strategies	Outcome-Based Strategies
Strengthen human, institutional and technical capacities in minerals governance, technologies, R&D and innovation in the ASEAN minerals sector to facilitate increased investment; higher production, utilisation and trade in minerals; and sustainable development outcomes.	**IH1** – Design a strategic framework for minerals capacity building in ASEAN, secure support and resources to sustain implementation, and to develop suitable platforms for knowledge management and exchange.	**IH1.1** – Design and implement the capacity-building workplan on all minerals governance priorities identified in the ASEAN Minerals Development Vision, and the Work Programme on Improving ASEAN Capacities in Mineral Governance including: leading practice regulation; transparent and efficient assessment and approval processes; sound fiscal policies and administration; implementation of APSMD principles; inclusive community engagement; and occupational and community health and safety.
		IH1.2 – Continue the implementation of the Regional Capacity Building Rolling Programme for AMCAP across priority aspects of technical and specialised areas in minerals development, including resource and reserve estimation, exploration, mines inspection, minerals processing, mining

Strategic Measure	Outcome-Based Strategies	Outcome-Based Strategies
		technologies, environmental management and rehabilitation.
		IH1.3 – Develop a capacity-building programme specifically for artisanal and small-scale miners to transfer knowledge and technology that will improve their performance, coordinating with support for ASM in the SMD programme area.
		IH1.4 – Develop an ASEAN knowledge management platform, to support governance and technical capacity development amongst ASEAN stakeholders, share information, exchange leading practices with other mining nations, and report on outcomes and impacts of AMCAP.
	IH2 – Further develop and facilitate networking, collaboration and knowledge exchange involving Dialogue and Development Partners and relevant International Organisations on key aspects of minerals development.	**IH2.1** – Collaborate with Dialogue and/or Development Partners to undertake needs assessments and diagnostics to help identify, prioritise, programme and deliver capacity-building initiatives.
		IH2.2 – Engage Dialogue and/or Development Partners and relevant International Organisations on areas that involve innovative technologies such as but not limited to digitalisation, green and resource-efficient technologies in mining and processing operations, and technologies that support circularity, use of green energy and other low carbon and resource-efficient technologies.
		IH2.3 – Engage Dialogue and/or Development Partners and relevant International Organisations on implementation of APSMD and leading practices in

Strategic Measure	Outcome-Based Strategies	Outcome-Based Strategies
		sustainability throughout the minerals value chain, with the aim of building support for and recognition of ASEAN's efforts to enhance capacity and deliver outcomes.
		IH2.4 – Initiate work to improve the knowledge, oversight and governance of development areas that require enhancement, such as for construction materials and industrial minerals critical to the development of the ASEAN region, as well as in emerging areas such as offshore and deep-sea mining.
		IH2.5 – Organise regional conferences focused on minerals governance and sustainability, to include research presentations, workshops, and networking and information exchange opportunities between academia, industry, and government.
		IH2.6 – Establish a network of universities, training institutions and research organisation working on mineral governance, SMD and technologies, link them with industry and help build their capacity in teaching and learning, research and development, through collaborations and technology transfer within and outside ASEAN.
	IH3 – Manage and monitor the effective implementation of AMCAP, including enhancing engagement with Dialogue and Development Partners	**IH3.1 –** Coordinate and monitor the implementation of AMCAP programme areas through a logic framework and an associated monitoring and evaluation mechanism to inform continuous improvement in AMCAP activities, address project implementation

Strategic Measure	Outcome-Based Strategies	Outcome-Based Strategies
	and relevant International Organisations, and broadening sources of funding and other resources.	challenges, and strengthen institutional and technical capacities.
		IH3.2 – Broaden sources of funding and technical resources, from both within and outside ASEAN, and secure these to sustain implementation of capacity-building initiatives, by improving understanding and abilities in project proposal development, evaluation, and endorsement.

5.2.4. Minerals Information and Database (MID) Programme Area

A primary focus of the Programme Area on Minerals Information and Database is to improve the quality and availability of precompetitive geoscience data, mineral development and production data, and related economic data such as minerals trade, to potential investors in exploration, and package and promote datasets to attract investment. Quality information and ease of access also enhances dissemination to, and decision-making by governments, NGOs and communities. The MID Programme Area is thus focused on strengthening the hard and soft infrastructure of the AMIS to ensure effective information and system management and access.

Through an enhanced ASEAN Minerals Information System (AMIS), the MID Programme Area seeks to:

1. Enhance ASEAN cooperation in minerals development by enabling the information infrastructure to support implementation of AMCAP and facilitate ASOMM collaboration.
2. Provide data and packages for implementation of ASEAN Mineral Exploration Strategy (AMEXS).
3. Provide geological data and packages, minerals-industry specific data, and policy and other information and that will help drive investment along the minerals value chain in the ASEAN region.
4. Provide information about the ASEAN minerals industry, minerals development in the region, research, capacity building, environmental and community aspects of minerals activity to aid decision-making by investors, governments, NGOs and communities.

The new AMIS will also: (i) provide easily accessible and transparent information about minerals development, production and sustainability to the ASEAN and global public, and (ii) provide a collaboration platform for agencies within and between ASEAN Member States, and with Development and Dialogue Partners, including CCOP.

To fulfil the above purpose, the Outcome-Based Strategies and Action Lines of the MID Programme Area, set out in Table 10, are designed based on a three-platform approach, through an AMIS Landing Page, WebGIS, and AMCAP Online Collaboration Platform (AOCP).

Table 10. MID Key Focus, Outcome-Based Strategies and Action Lines

Table 10. MID Key Focus, Outcome-Based Strategies and Action Lines

Strategic Measure	Outcome-Based Strategies	Action Lines
Implement a robust knowledge management and data collection protocol for the ASEAN minerals information system to improve the quality and availability of minerals data and related information to promote investment and inform decision-making.	**MD1** – Implement the restructuring of the AMIS Landing Page.	**MD1.1** – Strengthen the hard and soft infrastructure of the AMIS Landing Page that is open to the public to ensure effective system operation and management and attract viewers.
		MD1.2 – Establish agreements and protocols for relevant Agencies within AMS to regularly provide data in common formats and consistently so that AMIS Landing Page is able to be populated with relevant data and maintained with regular updates.
		MD1.3 – Enhance the content of the AMIS Landing Page by including general information, infographics on selected trade and investment statistics relevant to investors and the public as well as links to a wide range of relevant information, including the WebGIS and AOCP, taking reference from the initial List of Contents annexed in the adopted TOR of the Landing Page Sub-Working Group.
	MD2 – Implement the restructuring of the AMIS WebGIS.	**MD2.1** – Strengthen the hard and soft infrastructure of the AMIS WebGIS that is open to the public to ensure effective system operation and management and

Strategic Measure	Outcome-Based Strategies	Action Lines
		improve the availability of pre-competitive geological data.
		MD2.2 – Establish agreements and protocols for relevant Agencies within AMS to regularly provide data in common formats and consistently so that AMIS WebGIS is able to be populated with relevant data and maintained with regular updates.
		MD2.3 – Enhance the content of the AMIS WebGIS and provide geoscientific information necessary to improve the availability of pre-competitive geological data and to promote minerals investment, taking initial reference from the adopted ASEAN Minerals Exploration Strategy (AMEXS) version 1: 2023.
	MD3 – Implement the restructuring of the AMIS AMCAP Online Collaboration Platform (AOCP).	**MD3.1** – Strengthen the hard and soft infrastructure of the AMIS AOCP that is available by secure login to delegated authorities from the ASEAN Minerals Sectoral Body to ensure effective system operation and management and to facilitate information sharing and management of the AMCAP implementation.
		MD3.2 – Establish agreements and protocols for relevant Agencies within AMS to regularly and consistently provide data in common formats so that AMIS AOCP is able to be populated with relevant data and maintained with regular updates.
		MD3.3 – Enhance the content of the AMIS AOCP for sharing information and managing the implementation of the AMCAP, taking reference

Strategic Measure	Outcome-Based Strategies	Action Lines
		from the initial List of Contents annexed in the adopted TOR of the AOCP Sub-Working Group.
		MD3.4 – Investigate feasibility and specification of the platform for knowledge exchange and collaboration in priority areas for capacity-building in consultation with WGCBM.

6. Implementation of AMCAP-IV

6.1. Implementation Arrangements

In line with the Ministerial Understanding on ASEAN Cooperation in Minerals (2005), the ASEAN Ministerial Meeting on Minerals (AMMin) is the highest policy making body for ASEAN cooperation in minerals development. AMMin discusses issues, opportunities and challenges of common interest and sets policy directions for the cooperation in the ASEAN minerals sector (see section 2.3 for current directives). The AMMin Chairmanship is held by the Ministry of the ASEAN Member State hosting the AMMin and its associated meetings and events. To date, AMMin has met on a biennial basis.

The ASEAN Senior Officials Meeting on Minerals (ASOMM) is the main operating arm of the AMMin and oversees the Working Groups that assist Senior Officials in the development and implementation of AMCAP. ASOMM is held annually to appraise, direct and coordinate ASEAN cooperation activities in the minerals sector. The Chairmanship and hosting of ASOMM are on rotational basis in alphabetical order.

The four ASEAN Minerals Working Groups (WGs) assist ASOMM in implementing the Programme Areas of AMCAP-IV:

- Working Group on Trade and Investments in Minerals (WGTIM).
- Working Group on Sustainable Minerals Development (WGSMD).
- Working Group on Capacity Building on Minerals (WGCBM).
- Working Group on Minerals Information and Database (WGMID).

The Joint Working Groups Meeting of the ASEAN Minerals Cooperation (JWG) facilitates discussion of matters common to the WGs and enables all WGs to interact on cross-cutting issues and on the progress of individual WG activities.

The meetings of the JWG and WGs are held back-to-back twice each year. One is hosted by the incoming ASOMM Chair and the other by either the incoming ASOMM Chair or by the ASEAN Secretariat. For the chairmanship of the JWGs, both are chaired by the incoming ASOMM Chair (i.e. ASOMM Leader or Alternate ASOMM Leader of the host country).

The ASEAN Secretariat supports ASOMM and its Working Groups to carry out their functions, including providing technical support and assistance in the facilitation, coordination and review of the programmes, projects and activities, and securing funding and technical support.

The ASEAN Minerals Trust Fund provides funding support to the implementation of AMCAP projects and activities, as duly approved by ASOMM. ASEAN Dialogue Partners, Development Partners and international and regional organisations provide technical and funding support for delivery of AMCAP Programme Areas. ASEAN welcomes further collaborative partnerships to ensure successful implementation of AMCAP-IV.

6.2. Role of Lead Country and Country Coordinator

Implementation of the Action Lines in AMCAP-IV involves the participation of all ASEAN Member States. A lead country is appointed to oversee implementation of each Action Line to ensure that they and related Outcome-Based Strategies are implemented according to set timelines.

Engagement with each ASEAN external partner on minerals cooperation is led by a Country Coordinator from an ASEAN Member State. Areas of cooperation with each partner are prioritised in accordance with the needs of ASEAN and the strengths of the respective partner.

6.3. Preparation for AMCAP-V 2031–2035

To develop the next ASEAN Minerals Cooperation Action Plan, ASOMM will establish a Task Force, consisting of all ASEAN Member States. To inform development of the next AMCAP, the Task Force will also conduct a Mid-Term Review and End-Term Review. The Task Force will appoint amongst themselves a chair to lead the undertaking.

Preparation for AMCAP-V 2031–2035 will be initiated in early 2029, taking into consideration: the outcomes of the AMCAP-IV Reviews; progress toward the ASEAN Minerals Development Vision and implementation of the ASEAN Principles for Sustainable Minerals Development; the AEC Strategic Plan review mechanisms and outcomes; and other developments.

The indicative timeline on the development of AMCAP-V is shown below.

	Q1	Q2	Q3	Q4
2028	**Mid-Term Review of AMCAP-V**			
	Conduct TF Meeting back-to-back with JWG Meeting to develop initial MTR draft		Conduct TF Meeting back-to-back with JWG Meeting to discuss revised MTR draft	Report MTR final draft to ASOMM/AMMin
2029	**Development of AMCAP-V (round 1)**			
	Conduct TF Meeting back-to-back with JWG Meeting to discuss timeline and delivery, conceptualise supporting study to develop AMCAP-V	Commence the implementation of supporting study to develop AMCAP-V	Conduct TF Meeting back-to-back with JWG meeting to discuss AMCAP-V progress of development	Conduct 3rd TF Meeting back-to-back with ASOMM/AMMin to discuss AMCAP-V progress of development
2030	**End-Term Review of AMCAP-V**			
	Develop ETR Draft based on MTR		Present ETR Draft to JWG	Present ETR Final Draft to ASOMM/AMMin, for adoption
	Development of AMCAP-V (round 2)			
	Conduct TF Meeting back-to-back with JWG Meeting to discuss AMCAP-V Zero Draft	Conduct TF Meeting to discuss AMCAP-V First Draft	Conduct TF Meeting back-to-back with JWG Meeting to discuss AMCAP-V Second Draft	Present AMCAP-V Final Draft to ASOMM/AMMin, for adoption

Note: TF = AMCAP Task Force

7. Monitoring, Evaluation, and Stakeholder Engagement

A Monitoring and Evaluation (M&E) System will record the progress of AMCAP-IV implementation and the results of its strategies and actions. Details of the M&E System will be provided in a separate Monitoring and Evaluation handbook.

Robust monitoring and evaluation protocols are essential to ensuring AMCAP-IV is effective and efficient in achieving measurable progress towards the goals of the ASEAN Minerals Development Vision and the minerals-focussed goals and objectives of the AEC Strategic Plan. AMCAP-IV incorporates a Results-Based Management (RBM) framework that aligns with RBM framework of the AEC Strategic Plan.

Effective monitoring, evaluation and reporting are also the key tools to "promote greater accountability and increased transparency to restore public confidence in mining and minerals development" as declared by AMMin in November 2023. Continual improvement in investor and partner engagement, also called for by AMMin, needs to be verified by thorough monitoring, evaluation and reporting as well.

AEC Guidelines on the Development of AEC Sectoral Plans have been developed to ensure coherence with the AEC Strategic Plan and alignment with a common Results-Based Management framework and the AEC Monitoring and Evaluation System. The AMCAP-IV M&E System is consistent with the approach recommended in the 2021 report, Development Prospects for ASEAN Minerals Cooperation, accepted by AMMin, and as required for implementing the AMMin Declaration of November 2023.

7.1. Stakeholder Engagement Framework

Ongoing engagement of investors, potential investors, CSOs and NGOs, and Development Partners is essential to the success of most aspects of AMCAP-IV. A Stakeholder Engagement Framework, documented separately, is to be applied and reported on within the M&E System over the life of AMCAP-IV.

The AMCAP-IV Stakeholder Engagement Framework will reflect and feed into the wider AEC stakeholder communication arrangements about the implementation and outcomes of the AEC Strategic Plan.

Appendix A. Baseline Mineral Investment and Production Data

This Appendix contains baseline data and indicators on mineral investment and production in ASEAN. These will be used to underpin quantitative performance measures to track progress in the effectiveness of the AMCAP-IV.

Table 11. Mineral production 2018–2022 by ASEAN Member States and proportions of world production

COMMODITY	unit	Mineral Production 2018	2019	2020	2021	2022	World 2022	%
BRUNEI DARUSSALAM								
Cement, hydraulic	thousand metric tons	290	290	250	260	N.A.	4,100,000	<< 0.1
Nat. Gas	*million m^3*	*12,235*	*12,504*	*12,065*	*11,178*	*10,266*	N.A.	
Petroleum	*tons*	*5,553,200*	*6,040,240*	*5,479,350*	*5,308,680*	*4,577,160*	N.A.	
CAMBODIA								
Rare Earths	metric tons	0	0	0	1,466	3,320	300,000	**1.1**
Cement, hydraulic	thousand metric tons	4,900	7,400	7,900	8,700	N.A.	4,100,000	0.2
Gold	kg	0	0	0	1,466	3,320	3,060,000	0.1
Salt	metric tons	10,000	30,000	100,000	80,000	N.A.	270,000,000	<<0.1
INDONESIA								
Nickel	metric tons	606,000	853,000	767,000	1,069,000	1,579,000	3,270,000	**48.3**
Tin	metric tons	82,809	86,947	65,127	52,467	70,000	307,000	**22.8**
Aluminium (Bauxite)	metric tons	13,243,000	16,593,000	25,860,000	25,780,000	30,360,000	400,000,000	**7.6**
Copper	metric tons	591,000	334,000	500,000	712,000	921,000	21,900,000	**4.2**
Gold	kg	132,734	108,977	65,900	79,280	105,460	3,060,000	**3.4**
Kaolin	metric tons	1,400,000	2,700,000	1,700,000	1,600,000	1,600,000	51,900,000	**3.1**
Silver	kg	309,000	487,000	335,200	397,900	438,290	25,600,000	1.7
Manganese	metric tons	0	0	158,000	19,000	138,000	19,800,000	0.7

COMMODITY	unit	Mineral Production						
		2018	2019	2020	2021	2022	World 2022	%
Iron	metric tons	661,000	1,730,000	1,800,000	1,490,000	1,740,000	1,560,000,000	0.1
Lead	metric tons	11,000	11,000	8,000	8,000	5,000	4,460,000	0.1

LAO PDR

Bismuth	metric tons	2,743	3,009	1,062	993	2,067	19,000	**10.9**
Barite	metric tons	230,000	486,009	96,278	37,403	302,709	8,260,000	**3.7**
Potash	metric tons	300,000	335,000	280,000	432,000	495,000	40,900,000	**1.2**
Limestone	metric tons	2,622,992	1,066,611	3,969,688	2,614,061	4,465,382	430,000,000	**1.0**
Tin	metric tons	480	1,168	1,335	1,980	2,507	307,000	0.8
Gypsum	metric tons	463,039	618,783	606,387	737,749	1,221,959	155,000,000	0.8
Gold	kg	5,579	5,207	5,499	9,943	10,681	3,060,000	0.3
Silver	kg	37,465	34,443	34,893	25,797	21,345	25,600,000	0.1
Copper	metric tons	152,000	141,000	88,200	37,300	43,800	21,900,000	0.2
Iron	metric tons	99,196	470,300	1,013,042	3,522,598	1,794,798	1,560,000,000	0.1

MALAYSIA

Manganese	metric tons	492,000	441,000	339,000	261,000	247,000	19,800,000	**1.2**
Tin	metric tons	3,868	3,611	3,091	3,193	3,200	307,000	**1.0**
Kaolin	metric tons	312,616	308,758	301,503	228,605	236,841	51,900,000	0.5
Limestone	metric tons	1,446,629	1,628,058	1,478,250	1,500,000	1,500,000	430,000,000	0.3
Iron	metric tons	2,090,000	2,600,000	3,410,000	3,050,000	3,070,000	1,560,000,000	0.2
Gold	kg	2,978	4,598	1,716	1,782	1,826	3,060,000	0.1
Titanium	metric tons	14,158	2,334	2,548	4,600	24,093	N.A.	~0.1*
Aluminium (Bauxite)	metric tons	589,684	900,561	594,714	47,577	129,826	400,000,000	<0.1
Silver	kg	1,542	686	423	672	670	25,600,000	<<0.1

COMMODITY	unit	Mineral Production						
		2018	2019	2020	2021	2022	World 2022	%
MYANMAR								
Tin	metric tons	54,600	43,900	36,400	36,900	40,500	307,000	**13.2**
Rare Earths	metric tons	23,000	29,000	35,500	34,700	12,000	300,000	**4.0**
Manganese	metric tons	207,000	430,000	250,000	206,000	207,000	19,800,000	**1.0**
Lead	metric tons	38,200	37,800	23,200	26,100	26,000	4,460,000	0.6
Nickel	metric tons	21,000	20,000	22,200	18,000	10,000	3,270,000	0.3
Copper	metric tons	153,000	153,100	185,000	33,900	N.A.	21,900,000	0.2
Gypsum	metric tons	309,343	299,316	258,618	51,240	51,000	155,000,000	<0.1
Gold	kg	710	330	840	773	500	3,060,000	<0.1
PHILIPPINES								
Nickel	metric tons	344,966	323,325	328,372	387,047	345,000	3,270,000	**10.6**
Cobalt	metric tons	3,600	4,300	4,100	3,600	3,900	197,000	**2.0**
Gold	kg	20,765	20,646	21,030	25,332	29,007	3,060,000	0.9
Chromium	metric tons	45,011	36,423	35,112	30,721	147,492	41,900,000	0.4
Copper	metric tons	69,933	71,892	60,856	51,586	59,509	21,900,000	0.3
Silver	kg	29,782	31,267	24,024	30,856	56,227	25,600,000	0.2
Kaolin	metric tons	10,000	10,000	41,000	28,200	49,300	51,900,000	0.1
SINGAPORE								
Iron and steel, raw steel	*metric tons*	*618,000*	*550,000*	*419,000*	*568,000*	*550,000*	N.A.	
Petroleum, refinery, throughput	*thousand 42-gallon barrels*	*356,000*	*365,000*	*315,000*	*318,000*	*324,000*	N.A.	
THAILAND								
Gypsum	metric tons	11,197,000	9,788,000	9,279,000	10,403,000	9,848,000	155,000,000	**6.4**
Feldspar	metric tons	1,385,925	1,117,803	1,251,143	1,105,344	1,346,997	26,600,000	**5.1**
Rare Earths	metric tons	1,000	1,900	3,600	8,200	7,100	300,000	**2.4**

COMMODITY	unit	Mineral Production 2018	2019	2020	2021	2022	World 2022	%
Lead	metric tons	85,000	86,000	80,000	86,000	88,000	4,460,000	**2.0**
Limestone	metric tons	810,000	730,000	740,000	790,000	780,000	430,000,000	0.2
Tin	metric tons	75	73	315	351	132	307,000	<0.1
Iron	metric tons	0	11,000	73,600	201,000	118,000	1,560,000,000	<<0.1
VIET NAM								
Bismuth	metric tons	2,590	917	993	2,067	1,938	19,000	**10.2**
Tungsten	metric tons	4,800	4,500	4,225	4,800	3,800	79,800	**4.8**
Tin	metric tons	5,500	5,500	5,400	5,400	5,900	307,000	**1.9**
Zircon	metric tons	11,000	6,200	11,000	31,000	18,000	1,440,000	**1.3**
Aluminium (Bauxite)	metric tons	3,500,000	3,350,000	3,580,000	3,670,000	3,750,000	400,000,000	0.9
Manganese	metric tons	115,000	106,000	120,000	146,000	155,000	19,800,000	0.8
Lead	metric tons	14,500	12,400	13,900	16,600	20,600	4,460,000	0.5
Phosphates	metric tons	1,299,660	1,346,880	606,650	813,960	754,140	228,000,000	0.3
Copper	metric tons	26,200	29,200	30,800	33,900	34,700	21,900,000	0.2
Iron	metric tons	5,588,000	6,106,000	3,560,000	3,084,000	1,843,000	1,560,000,000	0.1
Titanium	metric tons	235,100	216,700	268,800	300,000	331,500	N.A.	~1.4*

Source: United States Geological Survey

Table 12. ASEAN trade in selected minerals and metals, 2023 (000,000 US$)

Minerals classification	Intra-ASEAN trade, total ($US)	Extra-ASEAN trade, exports ($US)	Extra-ASEAN trade, imports ($US)
Precious metals, rare earth elements	3,878	5,488	11.916
Copper	7,901	9,917	13,092
Nickel	149	8,021	1,343
Aluminium	5,075	10,655	16,518
Tin	1,168	2,325	281
Total	18,172	36,407	43.152

Source: ASEANStats

Table 13. ASEAN exploration for minerals, 2020–2024

Stage / Year	2020	2021	2022	2023	2024	Total	5 yr. av.	% of total
Grassroots	11.2	9.9	10.3	20.8	26.8	79.0	15.8	8.3
Late stage	35.6	59.8	73	66.1	30.8	265.3	53.06	27.2
Minesite	108.8	123.4	126.5	134.6	135.5	628.8	125.8	64.5
TOTAL	156.2	194.1	210	221.8	193.4	973.1	194.6	100

Source: S&P Global

Table 14. ASEAN Inward Foreign Direct Investment, Mining and Quarrying 2015–2024 (US$million)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	*Average*
1,289.81	1,184.27	1,217.30	665.58	-804.07	970.19	987.75	2,529.47	1,267.37	879.37	*1018.70*

Source: ASEANStats

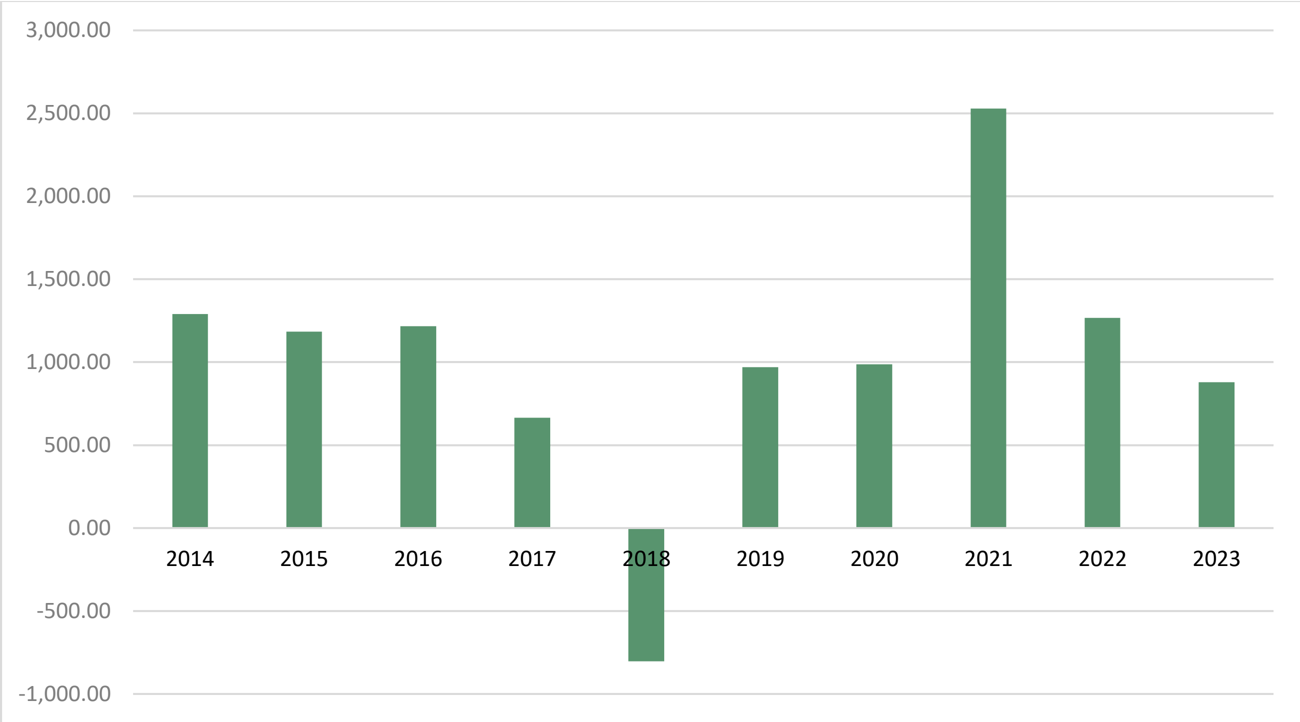


Figure 2. Chart of ASEAN Inward Foreign Direct Investment, Mining and Quarrying 2020-2024 (US$million). Source: ASEANStats